A Study on the Prospects and Challenges of Digital Financial Inclusion

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Area of the Paper: Management.
Type of the Paper: Case Study.
Type of Review: Peer Reviewed as per |C|O|P|E| guidance.
Indexed In: OpenAIRE.
DOI: https://doi.org/10.5281/zenodo.7259013
Google Scholar Citation: IJCSBE

How to Cite this Paper:

Riha Parvin, S. M., & Panakaje, N., (2022). A Study on the Prospects and Challenges of Digital Financial Inclusion. *International Journal of Case Studies in Business, IT, and Education (IJCSBE)*, *6*(2), 469-480. DOI: https://doi.org/10.5281/zenodo.7259013

International Journal of Case Studies in Business, IT and Education (IJCSBE)
A Refereed International Journal of Srinivas University, India.

Crossref DOI: https://doi.org/10.47992/IJCSBE.2581.6942.0210

Paper Submission: 10/09/2022
Paper Publication: 27/10/2022

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ABSTRACT

Objective: *Financial inclusion through digital means has initiated the concept of digital financial inclusion (DFI) which is intended to reach out vulnerable community without having digital financial access. This study is an attempt to analyze the various prospects and challenges concerning digital financial inclusion. As the main intention of this study was to assess the challenges and prospects of digital financial inclusion, ABCD analysis also has been undertaken to assess its Advantages, Benefits, Constraints and Disadvantages.*

Methodology: *This research is conducted through secondary sources in order to provide a full-fledged evidence-based study on the prospects and challenges of digital financial inclusion. The semi-systematic review is done through various published reports and articles from RBI, ABD, G20, Springer, Tailor & Francis, Emarald, Google Scholar, Srinivas Publications, Research Gate, SSRN, etc.*

Findings: *The result of extensive review revealed that digital financial inclusion acts as a major catalyst for socio-economic, sustainable and inclusive prosperity. Various challenges concerning digital financial inclusion includes lack of financial literacy, inefficient utilization of technology by the rural population, lack of trust and data privacy concern. Apart from that the study strongly argued that digital financial inclusion promotes socio-economic development of the citizens and it also reduces cost, improves efficiency and competitiveness of the service providers.*

Practical Implications: *This research provides a guide for financial institutions and FinTech companies to realize the various challenges tackled by the citizens to improve their service delivery and provide better digital services. It also acts as a source of information to the users of DFI to understand the benefits of being digitally inclusive for their finance.*

Originality/value: *As a secondary data based study it may provide overall view on DFI and may help the policy makers and financial regulators to promote financial inclusive growth; but the concept of DFI can also be better understood by conducting a primary survey, hence it acts as limitations of the study.*

Paper type: *Case Study*

Keywords: Digital Financial Inclusion, Prospects, Challenges, ABCD Analysis, Poverty Reduction

1. BACKGROUND :

Currently, one of the most well-known sectors of international development is digital financial inclusion [1]. Recently, it has drawn attention from corporations and governments all across the world [2-4]. In an effort to lower poverty rates in emerging and developing economies, the G-20 as well as the World Bank have taken the lead on a campaign to enhance financial inclusion in these nations since 2010 [5]. However, majority of those who are financially excluded own a mobile phone as an asset, despite the fact that over two billion population is not provided with adequate finance and credit facilities [6]. Being poor is expensive, so as a result, impoverished people deal nearly entirely in cash. Saving money is challenging for people who make less than $2 per day, moving cash involves significant fees, getting credit is tough, and natural disasters or illnesses can further impoverish people who don't have savings or insurance [7]. In order to promote secure and inexpensive financial related services such as payments, money transfers, domestic and international transfers, insurance, credit, and savings etc. technological adoption in the form of smartphones and internet facilities is quite essential [8]. According to the CGAP, "access to technology to, including the use of, basic financial institutions by the excluded and disadvantaged population" [9] constitutes digital financial inclusion. On July 1, 2015, Prime Minister Narendra Modi aggressively rolled out India's digitization system. With the aid of high-speed Internet networks, the main goal of the digital India programme is to give rural areas digital connectivity. For recipients of numerous government programmes, the Ministry Of finance is currently striving to make the payment systems more effective by developing a single payment structure [10].

2. REVIEW OF LITERATURE :

Technology is essential for enhancing access to financial services. Financial institutions are encouraged to establish online financial service platforms that may offer a full range of financial services, including information, funding, and products, in accordance with the FIP, which encourages them to use emerging information technology [11]. Various articles have been sourced using keywords “Financial inclusion” “Digital finance”, “Digital Inclusion” “Economic Development” “Prospects and Challenges” “ABCD Analysis” and “Poverty Reduction” from Google scholar. This process helped the researcher to easily find the study pertinent articles and to review those articles to find the gap.

Table 1: The numerous works on DFI are reviewed in this section.

S. No	Area	Contribution	Authors
1	Financial inclusion	Financial Inclusion refers to ensuring smooth accessibility of financial services by the backward and weaker sections of the society through extending affordable credit facilities.	Malladi, C. M., Soni, R. K., & Srinivasan, S. (2021). [12]
2	Digital Inclusion	Digital inclusion is concerned with easy adoption of financial technology without any barriers which requires digital skills to operate and access to digital devices.	Aziz, A., & Naima, U. (2021). [13]
3	Digital finance	Usage of digital devices to avail financial access can be a way to promote financial inclusion as it enables utilization of banking services as half of global population fails to avail the financial services in emerging countries.	Rizzo, M. (2014). [14]
4	Fintech	Fintech businesses are able to connect with individuals from all walks of life thanks to their cutting-edge goods and services as well as their convenience, speed, and safety aspects.	Ravikumar, T. (2019). [15]
5	Digital Banking System	PayTM, Yono by SBI, ICICI Pockets, and other digital banking services are available in India. Chinese people utilise Alipay, Wechat Pay, etc. at the same time that Malaysians use May Bank QR Pay, CIMB Pay, TnG E-Wallet, etc. Indonesia also offers QR pay, Boost pay, etc. Thailand features wallets like Omise and True Money. There are Banko, BDO, Bitbit, etc. in the Philippines, and EasyPaisa, JazzCash, UBL Omni, etc. in Pakistan.	Banna, H., & Alam, M. R. (2021). [16]
6	Digital financial products and services	The main features of digital financial products and services includes e-payment, remote account management electronic document, and online services,	Naumenkova, S., Mishchenko, S., & Dorofeiev, D. (2019). [17]

In this context, FinTech has prompted the development of the "digital financial inclusion" paradigm, which attempts to provide digital platforms for transactions that can deliver essential financial services to the world's underserved societies, who are seen as an untapped "goldmine" market. The McKinsey Global Institute calculates that digital finance, which expands access to savings accounts beyond conventional and informal mechanisms, is responsible for a flow of $4.2 trillion in deposits into developing nations. This digital narrative has sparked a shift in the financial services industry toward the production of both individually and collectively beneficial economic and social outcomes, enabling societies to build digital financial capabilities through the use of cutting-edge technologies and financial tools [18].

3. OBJECTIVES OF THE STUDY :

(1) To understand the concept of digital financial inclusion.
(2) To assess the various prospects of digital financial inclusion.
(3) To identify the various challenges pertaining to digital financial inclusion.
(4) To assess the advantages, benefits, constraints and disadvantages of digital financial inclusion.

4. RESEARCH METHODOLOGY :

Secondary sources have been surveyed in this research in order to provide a full-fledged evidence based study on prospects and challenges of digital financial inclusion. The semi-systematic review is done through various published reports and articles from RBI, ABD, G20, Springer, Tailor & Francis, Emarald, Google Scholar, Srinivas Publications, Research Gate, SSRN etc. Hence the source of data considered is from secondary source to explore the existing knowledge.

5. DIGITAL FINANCIAL INCLUSION :

Digital finance is the major innovation in banking and other financial service sectors [19]. In a McKinsey report, the phrase "financial services offered via mobile phones, the internet, or cards" is used to define digital finance. [20]. According to [21], FinTech companies and innovative financial service providers offer a wide range of financial products and services. Moreover, the concept of Digital financial inclusion came into existence which refers to programmes to provide underprivileged communities of people with inexpensive digital financial access [22]. It offers businesses digital alternatives for saving money, investing, and forming new capital. This is the management and organisation of numerous financial and payment services that are offered and controlled by a group of specialists using mobile or Web technology [23]. According to [24], employing cutting-edge technologies (the web, mobile communication technology) to access financial benefits is referred to as computerized money-related services. Wide range of digital financial services offered by the numerous providers to broader range of recipients is what we mean when we refer to "digital financial services" as a result. This is possible through the development of digital transformation including e-money, mobile banking and cashless transactions. The main aim of financial inclusion in emerging nations is supported by financial services readily accessible through digital platforms. A wide range of financial services, are all viewed as contributing to the well-being of marginalized sections through digital means, the authors further contend [25]. They also claim that access to social and institutional inclusion and savings accounts, and these factors are all important factors.

5.1 The following are the key elements of digital financial inclusion:

- Digital platforms enable clients to send and receive payments and transfers as well as store information electronically through the digital device that transmit and link to a bank or non-bank authorized to save electronic value.
- Customers can utilize mobile banking services that transfer information to a digital device like a point-of-sale terminal.
- Through retail mediators who have a digital connected device to transfer the information, customers can change cash into electronic storage value ("cash-in") and subsequently change stored value in return into cash ("cash-out").

- Banks and non-banks may offer various financial services via digital platform to the economically disadvantaged and excluded, frequently using digital data to target customers and manage risk [26].

The UN General Assembly, which consists of 193 countries, approved the Sustainable Development Agenda in September 2015 denoting Transforming Our World: The 2030 Agenda. Among the goals that would change the world were those of No Poverty, Quality Education, Gender Equality, Affordable Clean Energy, Decent Work and Economic Growth, Reduced Inequality, and others. Given the size, complexity, and geographic reach of these game-changing goals, innovation and entrepreneurship are crucial for integrating the poor into the formal financial system. Financial inclusion, which FinTech may actively support, is therefore crucial [27].

6. CHALLENGES OF DIGITAL FINANCIAL INCLUSION :

There are numerous obstacles and issues associated with digital financial inclusion, particularly in distant areas. DFI can be difficult in India because the bulk of the country is rural. Meanwhile, despite comparatively high levels of account ownership, India and China account for considerable proportions of the worldwide unbanked people (130 million and 230, 000,000, respectively) due to their size. 24 per cent of adults worldwide are unbanked. The Global Findex 2021 poll asked unbanked adults why they did not have an account—either a financial institution account (as Findex has asked since its start) or a mobile money account—to assist shed light on why people do not have one (as queried by Findex for the first time in the 2021 survey). In other words, consumers frequently responded that they do not have enough money, followed by another barrier, such as financial services being too expensive or too far away. Bolivia (47%), India (43%), Lao PDR (45%), and Uganda had a larger proportion of unbanked adults citing distance as a barrier (41%). Distrust in the financial system is a higher barrier in some regions, and it was noted by 23% of unbanked people globally- Global Findex Database 2021 [28]. In India, around one-third of account holders had an inactive account in the previous year.

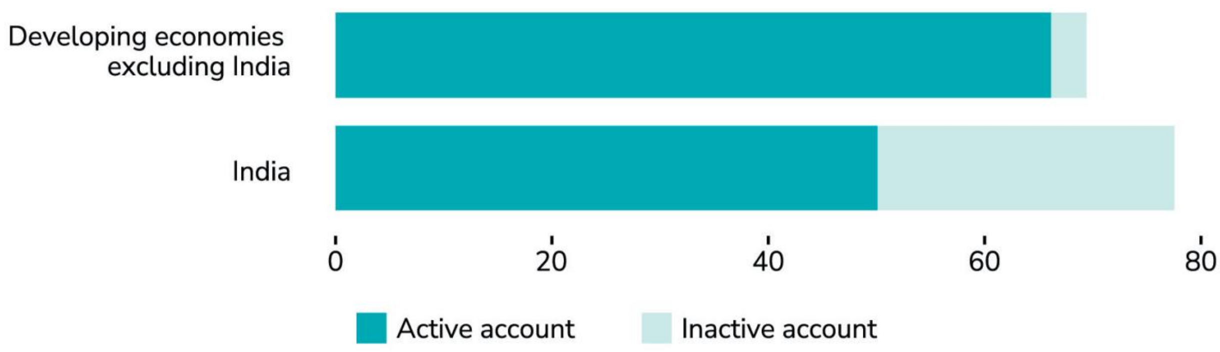

Fig. 1: Adults with accounts (%) in 2021

Source: Global Findex Database 2021[28]

The proportion of account owners who have an unused account varies by developing economy, but it is particularly high in India, where it is 35%, the most in the world. This proportion is around seven times higher than the 5% average for all emerging economies, except India. Numerous of these accounts were created being part of the Indian government's Jan Dhan Yojana plan to encourage account ownership, which could explain India's high rate of account inactivity. Introduced in August 2014, the programme had attracted an extra 450 million Indians into to the formal banking system by April 2022. 36 When the Global Findex 2017 poll was performed, the majority of new account had already been opened. The proportion of adults in India with an inactive account stayed roughly constant from 2017 and 2021, according to the Global Findex Database 2021. Examining data for developing nations other than China finds that two-thirds of persons with accounts made exclusively cash payments to merchants. In India, this proportion was 85 percent, or 670 million adults. More over 90 percent of adults with an account in Bangladesh and Tanzania made merchant payments only in cash, as did 75 percent in Indonesia, 54 percent in Kenya, and around 40 percent in Brazil, South Africa, and Turkey [28]. Consumers will be discouraged from using digital financial services as a result of the risk involved with doing so [29][30]. Private information hacking would reduce consumer involvement and trust with digital financial services [31].

- Due to poor adoption and use, the potential of DFS may be diminished, which would have a negligible effect on the phenomenon of financial inclusion [32].
- Shortage of infrastructure for providing banking services is one of these limitations [33]. According to [34], financial inclusion depends on bank branches being easily accessible to local populations. However, the implementation of these infrastructures has proven to be incredibly expensive for banks due to few of their clients and the high costs of participating in financial and banking activities [35].
- Consumer participation in digital financial services will be diminished as a result of security breaches and an inadequate level of protection from cyber-crimes and frauds with respect to online transaction [36-38]
- Low financial knowledge and notion of financial cybercrime has created lack of trust among the rural population, leading in lower digital penetration [39].
- Low awareness and information on the benefits enabled by digital services can diminish consumers' willingness to use digital financial services [38].
- A number of studies have identified difficulty in use, technological structure, and technological design as specific hurdles [40].
- Consumers' and mobile network operators' (MNOs') faith in digital financial services will be eroded as a result of key difficulties such as regular denial - of - service, incomplete and interrupted transactions, and so on [41].
- Failure to keep up with new technology developments has a negative influence on banking institutions' efforts to promote digital financial services [42].

For illustration reasons, RBI determined that it would be difficult to install ATMs in all villages due to the enormous cost of these facilities. Furthermore, tangible transactions with banking institutions are frequently prone to fraud, inaccuracy, and omissions [43].

7. PROSPECTS OF DIGITAL FINANCIAL INCLUSION :

Internationally, digital finance is seen as an adequate technique of promoting financial inclusion by lowering the costs of offering these services as per Asian Development Bank, 2016. According to [44], digital financial services are important to the public since it increases the security of their cash and is more convenient than storing money at home and travelling with the money. It is User-friendly, safe, and inexpensive globally, digital payments are rapidly rising. As far as Global non-cash payments is concerned, it has increased by 8.9% in 2014, while mobile payments are expected to increase by a whopping 60.8% in 2015[32].

- According to [45], mobile financing increases savings and, particularly, women's financial empowerment. Similarly, [46] assert that mobile banking networks give financially excluded people who would otherwise desire cash transactions access to an online payment register. Additionally, the risk of loss, expenditure, fraud, and other financial crimes linked with cash transactions can be reduced via digital financial inclusion [47].
- Information devices are well equipped to deliver banking services to future generations, in addition to the common services offered by digital technologies, such as payments, savings, and loan [48].
- Digital technologies are transforming organisations' customer-side operations, and firms are actively seeking beneficial digitalization strategies to enhance these technologies.
- The widespread acceptance and use of digital finance has the potential to boost overall GDP of all growing economies by 6%, or USD3.7 trillion, by 2025," which is similar to the size of Germany's economy. Furthermore, this additional GDP would generate 95 million new jobs in all sectors around the world [16].
- Mobile banking platforms have very user-friendly interfaces; customers perceive them to be simple to use and hence build favourable opinions toward them [49].
- Financial services delivered via digital platforms may help to reduce poverty and increase financial inclusion [50-51].
- Cost obstacles to providing banking services, which are extremely serious in remote rural communities and among disadvantaged people like women, the urban poor, and migrants.
- Information asymmetries between consumers and service providers notably among the unbanked, who have little or no data required to adequately manage risk

- An absence of an easily verifiable ID and difficulty meeting customer due-diligence prerequisites and an insufficient amount of suitable financial products [52].

The use of computerized monetary administrations has grown in popularity recently among many people who have had little prior experience with official budgetary administrations [53]. Online products enable customers to obtain funds from distant business people including relatives, and friends during times of crisis, minimizing the poverty in the first place [54].

8. ABCD LISTING :

Aithal, P. S. et al. (2015) established the ABCD analysis to determine the business framework and examine its efficacy in providing value to stakeholders [55]. When these analyses are used, they produce an orderly list of company advantages, benefits, restrictions, and downsides. It assesses the usefulness of a thought or idea in a specific setting using the ABCD analysis framework. This analytical framework has recently been presented in the company analysis framework, among other things [56]. Additionally, the ABCD analytical framework can be used to identify resources such as materials, technology, information, and human resources for the goal of societal benefits. In this study the researchers attempts to conduct the ABCD listing of Digital Financial Inclusion for Rural Customers as well as for service providers. Which is further discussed below;

8.1 ABCD listing of DFI for Rural Customers:

This section discusses lists out various advantages, benefits, disadvantages and constraints of digital financial inclusion to analyze the future challenges and opportunities in order enlarge the scope of digital financial inclusion in the rural area and inclusive growth to tackle the problem of regional imbalances.

ADVANTAGES	BENEFITS
➢ Credit accessibility to weaker section ➢ Poverty alleviation ➢ Inclusive finance ➢ Welfare and well-being ➢ Safeguard's their cash compared to home saving ➢ Easy accessibility of money from near ones and business people during the moments of crisis, ➢ Financial empowerment ➢ Financial resilience.	➢ Convenience, safety and speed ➢ Social and institutional inclusion ➢ Promotion of savings accounts by giving easy access. ➢ Access to diversified financial services such as investments, microcredits, payments and savings. ➢ Secure user-friendly and cost-effective ➢ Increases savings ➢ Reduces the threat concerning to frauds and other financial crimes with cash payments
CONSTRAINTS	**DISADVANTAGES**
➢ Risk concerning mobile banking ➢ Lack of digital and financial literacy ➢ Low level of awareness and knowledge ➢ Frequent denial of services, incomplete and interrupted transactions ➢ Drastic technological development. ➢ Complexity in use, technical structure, and design of technology	➢ Lack of protection against data breach and privacy fraud. ➢ Cyber-attacks ➢ Threat of privacy and security concerns ➢ Fear of loss of PIN codes ➢ Charging high rate of interest

Source: Author

8.2 ABCD listing of DFI for service providers:

Furthermore the researcher attempted to assess the advantages, benefits, constraints and disadvantages of digital financial inclusion from the perspective of service providers to understand the existing status in order to improve future services and tackle the existing challenges in implementing digital financial inclusion in all the areas of India.

ADVANTAGES	BENEFITS
➢ Innovation in the financial service business is known as digital finance ➢ Great way of interacting and communicating with customers ➢ Cashless society ➢ Financial stability- banking stability ➢ Tackle cost barriers ➢ Provides information symmetries between service providers and consumers	➢ Availability of wide reaching technologies to perform financial services ➢ Reduction of costs ➢ Consumer friendly interface ➢ Reduces the problem on ID verification and meet customer requirement ➢ Easy to provide suitable financial products for lower income segments
CONSTRAINTS	**DISADVANTAGES**
➢ Lack of infrastructure to provide banking services ➢ Requirement of huge expenditure on banking infrastructure. ➢ Shortage avenues for lending and online loans from credible through digital platform.	➢ Inadequate uptake and usage ➢ Shortage of physical network in the effective delivery of digital services ➢ The customer's lack of trust in the digital financial services ➢ There is a complication on running sustainable last mile delivery model.

Source: Author

9. FINDINGS :

Based on the above review and discussion following findings have been listed out;

- Digital technology has considerably contributed to financial inclusion.
- Internet and mobile phone use promotes financial inclusion more than other technologies.
- Strong internet access is required for payments and other online transactions.
- The usage of the internet on smartphones enables important banking services, which account for a large portion of digital finance in emerging countries.
- A DFI that helps individuals improve their financial resilience.
- DFI works for developing countries' financial growth to be sustainable and inclusive.
- However, just 33percent of all adults worldwide have financial literacy, which is required for financial decision-making.
- Financial knowledge the major catalyst for the smooth flow of a DFI operation.
- The study also revealed that countries have adequate access to DFI, but majority of the population is unable to use it effectively as they possess low financial literacy level.
- Due to the exorbitant expense of building adequate infrastructure in rural areas, banks are taking a step back.
- Acceptance of mobile banking is limited by the perceived difficulty of technology adoption, and it has a significant potential to affect people's behaviour, particularly in rural areas, if they consider that mobile banking is simple to use, clear, and valuable to them.

10. RECOMMENDATIONS :

The above findings have directed the researcher to propose the following recommendation to enable the hurdle free DFI;

➢ However, further than the digitalization of an economic system necessitates the augmentation of telecommunication facilities to the marginalized section of the society, as is critical in providing a platform for a digital means of communication between customers and mobile payment agents in remote areas.

- Product phrases that are clear and easy to comprehend may be especially helpful for individuals with limited financial knowledge and skill.
- Traditional school environment financial education has produced inconclusive results.
- Campaigns, seminars, and workshops should be organised to educate people about money.
- Banks should create a website with features or provide information about new value-added services to encourage customers to use mobile banking, hence reducing perceived risk and increasing perceived ease of use of banking services.

11. CONCLUSION :

As the study was intended to get in-depth notion on the concept of digital financial inclusion and to assess the various prospects and challenges of DFI, the researcher listed out various advantages, benefits, constraints and disadvantages of DFI from the perspective of rural customers as well as service providers. The result of which showed that DFI is very essential for the rural individual to experience sustainable and inclusive financial growth to improve their standard of living. In response to this it is vital to provide basic digital financial service by investing on the sufficient infrastructure in rural areas. Furthermore this study also pondered on the active role of service provider to encourage DFI. This study is a live guide to the financial institution understands the various challenges and opportunities concerning DFI for the financially inclusive growth of all the sections of the society.

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